

CHALLENGES FACED BY NURSE EDUCATORS IN TEACHING RESEARCH TO UNDERGRADUATE NURSING STUDENTS

by

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DECLARATION

I declare that the **CHALLENGES FACED BY NURSE EDUCATORS IN TEACHING RESEARCH TO UNDERGRADUATE NURSING STUDENTS** is my own work and that the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

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ABSTRACT

The aim of nursing practice is to provide evidence-based care that ensures quality outcomes for patients, families, healthcare providers and the health care system. This may only occur with increased exposure to nursing research. Nursing education institutions should therefore ensure that students are prepared to provide evidence-based care by participating in and conducting research.

The purpose of the study is to explore and describe the challenges faced by nurse educators in teaching research methodology and supervising undergraduate nursing students at a university in order to make recommendations to support nurse educators in teaching research and supervising research projects. Qualitative, explorative, contextual and descriptive research was conducted to explore and describe the challenges experienced by nurse educators. Data were collected through a focus group discussion. Nine nurse educators participated in the research study.

Participants acknowledged that they faced challenges in teaching research methodology and supervising research projects. The challenges described pertained to human resources; research experience, competencies and guidelines; physical resources; and a lack of support from their institution's management.

Based on the challenges, recommendations were made to address the lack of specific competencies, research guidelines, student/educator ratios, physical resources and technology issues.

KEY CONCEPTS

Nursing research; research supervision; research teaching; Swaziland

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LIST OF ACRONYMS AND ABBREVIATIONS

AACN	American Association of College of Nursing
CCNE	Commission on Collegiate Nursing Education
IT	Information Technology
SANU	Southern Africa Nazarene University
SNC	Swaziland Nursing Council

CHAPTER 1

OVERVIEW OF THE STUDY

1.1 INTRODUCTION

Mellish, Brink and Paton (2009:324) state that “research is essential for the development of a unique scientific body of knowledge, the hallmark of a profession, and should be utilised to provide the basis for professional theory and practice. No profession can adequately improve control over, or evaluate its practice, without research, nor can an education system advance without research”. Therefore, research must be accepted as an integral part of nursing practice, education and administration. Research-mindedness should be fostered in nurses right from the beginning of their training (Mellish et al 2009:324).

Nurse educators play a pivotal role in strengthening the nursing workforce, serving as models and providing the leadership needed to implement evidence-based practice. They are also critical role players in ensuring quality educational experiences that prepare the nursing workforce for a diverse, ever-changing health care environment that is based on research (Coe 2012:1). Nursing students should also be prepared to deal with extraordinary complex client’s health issues (Kurtz, Lemley & Alverson 2010:38).

In order to encourage or cultivate a research culture in the learner and to develop competency in research, the educator needs to be clear on the nature of research and be able to teach students how to understand, evaluate and apply research (Mellish et al 2009:324). The nurse educator should be able to delineate research activities at different educational levels, incorporate research findings into lectures and engage in research or related activities as part of their professional role (Brew & Jewell 2012:47).

1.2 BACKGROUND TO THE PROBLEM

‘Nursing research’ is defined as knowledge that will directly and indirectly influence nursing practices (Burns & Grove 2009:3). Nursing research guides nursing practice by providing evidence to nurses (Roberts 2013:4). The goal of nursing is to provide

evidence-based care that ensures quality outcomes for patients, families, healthcare providers and the health care system. This may only occur with increased exposure to nursing research. Nurse educators should therefore ensure that students are prepared to provide evidence-based care by participating in and conducting research.

All degree nursing programmes include research as part of the curricula and thus an expected outcome of the programme (American Association of Colleges of Nursing 2006:5). In some institutions it is now also expected from diploma-prepared nurses to participate in research activities, ensure that ethical guidelines are followed, implement recommendations from research findings for improvement, share research findings with research authorities and implement research findings for improvement of care (Swaziland Nursing Council 2010b:26).

The objective of the Swaziland Nursing Strategy (Swaziland Ministry of Health 2013:16) is to improve nursing services based on results of research conducted at service stations and education stations, creating a culture of research. As a result, one college has been upgraded to a university to produce a degree nursing programme that includes a research component. Another college had to include research in the curriculum as it now has to train diploma-prepared nurses with research competencies (Good Shepherd Nursing College 2011:2). However, the level of research skills and experience among the nurse educators will have an influence on the research culture that is passed on to the future nurses. Nurse educators need to develop and teach research curricula.

Up until recently it was only the University of Swaziland that offered research theory and taught students to conduct research in Swaziland. However, it is now expected from all the diploma and degree nursing students (undergraduate students) to be able to apply the principles of drafting a research proposal, implementing the research and writing a scientific report (Mellish et al 2009:334). Application and synthesis are the cognitive functions required of the student when doing research; not only memorising. To contribute to the research culture in Swaziland and to the nursing profession, the curricula of all nursing students in Swaziland should include research, but the educators need to be supported to achieve this.

In Swaziland Nazarene Nursing College was responsible for producing diploma nursing students, but it has since been changed to the Southern Africa Nazarene University (SANU) that now offers a degree nursing programme. Good Shepherd Nursing School which was offering a Certificate in Nursing Assistant Programme will now have to offer a diploma programme that will include research methodology and research skills as part of the programme.

Research training will assist the nurses when providing evidence-based practice. The same nurse educators who were teaching the diploma nursing students and the nursing assistants respectively are now expected to teach research and supervise research projects to the degree nursing students and the students of the new diploma nursing programme. If the majority of these nurse educators, working at the university and college do not have Master's degrees or were not trained in research, this change can contribute to numerous challenges. These challenges should be identified and addressed.

1.3 PROBLEM STATEMENT

The Southern Africa Nazarene University was responsible for offering the diploma nursing programme in Swaziland, while the Good Shepherd Nursing College was responsible for offering a certificate in nursing assistant programme. These same nurse educators of the above mentioned programmes are now expected to teach research methodology to degree nurses and diploma nurses respectively.

According to these nurse educators, they do not have a research background, but it will be expected of them to teach research, supervise students in preparing research proposals and contribute to the research culture in the institutions. They also need to develop a curriculum with research methodology as part of the requirements for the degree and diploma nursing programmes in Swaziland. Since the nurse educators do not have research skills, but are expected to teach research, it might be a challenge for them.

This study, therefore, seeks to identify and describe challenges faced by nurse educators at the participating nursing education institution to teach aspects of research to undergraduate student nurses in order to write recommendations to support them.

1.4 PURPOSE OF THE STUDY

The purpose of the study is to explore and describe the challenges faced by the nurse educators in teaching research methodology and supervising students at a selected university in order to make recommendations to support them in these tasks.

1.5 OBJECTIVES OF THE STUDY

The objectives of the study are to describe

- challenges that are faced by nurse educators when teaching research methodology
- recommendations on how nurse educators can be supported to teach research and supervise degree and diploma nursing students with research projects

1.6 DEFINITION OF KEY CONCEPTS

Nurse educator

A nurse educator is a registered nurse with a diploma or certificate in nursing education (South Africa 1987).

Nursing education

Nursing education is a process whereby students are guided, assisted and provided with means that enable them to learn the art of nursing so that they can apply it to the nursing care of people who need such care (Mellish et al 2009:71).

Nursing research

‘Nursing research’ can be defined as a systemic inquiry designed to develop knowledge about issues of importance to the nursing profession (Polit & Beck 2012:736).

1.7 METHODOLOGY

A qualitative research method is used in this study. Qualitative research is a systematic, interactive and subjective approach used to describe experiences and give them meaning (Burns & Grove 2009:717). The researcher explores and describes challenges experienced by nurse educators at the university and recommends strategies to support them in teaching research and supervising research projects.

1.7.1 Study design

The study design is a specific plan of the actions that is developed and implemented by a researcher to conduct a research study in order to exploit the control factors that should be taken into consideration to ensure the quality of the research findings (Burns & Grove 2009:236). The researcher uses a qualitative, explorative, descriptive and contextual design in this study.

Explorative

Exploratory research investigates the full nature of the phenomenon, the manner in which it is manifested and the other factors to which it is related (Polit & Beck 2012:18). The study is explorative because it explores the challenges faced by nurse educators in teaching research at the university and college in order to formulate strategies to address the identified challenges.

Descriptive

Descriptive design is designated when more information about individuals within a particular field of study needs to be expanded (Burns & Grove 2009:237). The study is descriptive because it was intended to describe the challenges faced by nurse educators when teaching research at the university and the college.

Contextual

The study is contextual because it aims to study the challenges faced by nurse educators when teaching research to degree and diploma nursing students within the context of the university and college in Swaziland.

1.7.2 Population

The target population refers to a particular kind of individual or component who is the centre of the research (Burns & Grove 2009:343). The population for this study is all nurse educators working at the selected university and college. The university was selected because it was upgraded from being a college to a university. The same nursing educators who were teaching diploma nursing students are now expected to teach and supervise research projects for the degree nursing students. The college was selected because it was also upgraded to deliver diploma nursing programme from the nursing assistant programme. Nurse educators need to be supported as they are expected to teach research methodology and supervise research projects to diploma nursing students at the college.

1.7.3 Unit of analysis

According to Burns and Grove (2009:343), sampling involves selecting a group of people, events, behaviours or other elements with which to conduct a study. All nurse educators, through the vice chancellor of the university and the principal of the college, were asked to volunteer to participate in the study because they all supervise students for their research projects and/or teach research methodology to students.

1.8 DATA COLLECTION INSTRUMENTS

A focus group discussion was conducted to collect data for the study. Focus group discussions are a method of qualitative data collection in which data is gathered through group interaction on a chosen topic (Doody, Slevin & Taggart 2013:266). A discussion guide was used during the focus group to ensure that the challenges were discussed, but the group members also elaborated on possible recommendations to support them.

1.8.1 Trustworthiness

Polit and Beck (2012:745) define 'trustworthiness' as the degree of confidence qualitative researchers have in the data that they have obtained, using the criteria of credibility, transferability, dependability and confirmability. These aspects will be discussed in detail in chapter 2 in the methodology (see page 22-23).

1.8.2 Data analysis

Every respondent in the focus group is understood to have their own views and perspectives of the challenges they experience and the researcher was therefore able to describe the range of diversity in analysing the qualitative data (Bless, Higson-Smith & Sithole 2013:338). The researcher applied the qualitative analysis of texts and words during the study and defined 'qualitative analyses as the organisation and interpretation of the narrative data. The narrative data was analysed and interpreted to discover underlying themes, categories and patterns of relationships regarding the challenges (Polit & Beck 2012:739).

1.8.3 Ethical considerations

Ethics approval was obtained from the Research Ethics Committee of the Department of Health Studies, University of South Africa and the Vice Chancellor of the Southern Africa Nazarene, but the Principal of the Nursing College refused consent (further detail is described on page 11). Informed consent was obtained from all volunteers who participated in the focus group discussion.

1.9 SIGNIFICANCE OF THE STUDY

The significance of the study lies in making recommendations on strategies to support the nurse educators in teaching and supervising research and to make them more equipped and knowledgeable about research and research supervision.

The university and the college would benefit in terms of applying the research recommendations that educators will have gathered during the research study. The findings would also contribute to the improvement of a research culture at the university

and the college. In addition, the nursing environment in the Manzini and Lubombo Region could be improved significantly by the application of research skills.

The researcher will gain a lot from this study because it will open up a field where various ideas on nursing research are explored. She will also obtain knowledge and skills on how to conduct research and write a scientific research report.

It is also hoped that the outcome would inspire other researchers in nursing education to take an interest in the topic, especially in Swaziland where such studies had not been carried out yet. The findings can also contribute to the improvement of the culture of research in the nursing profession if the nurse educators become competent researchers and supervisors.

1.10 CONCLUSION

This research study reveals the challenges faced by nurse educators at a university and college in teaching and supervising students' research projects. The majority of the nurse educators at the university and college in question did not have a research background and yet they were expected to teach research to degree and diploma nursing students. In addition, they were also required to develop a curriculum that included research methodology. Supervision and guidance in their students' research projects were also part of their duties. This study outlines the different ways that nurse educators want to be supported to improve in teaching and supervising research projects.

1.11 OUTLINE OF THE DISSERTATION OF LIMITED SCOPE

Chapter 1 is an orientation of the study and includes the research problem, purpose, objectives and research questions, definition of the main concepts as well as a short overview of the methodology.

Chapter 2 forms a description of the methodology that was followed to conduct this study in a scientific and ethical manner.

Chapter 3 reflects the data analysis, data interpretation as well as the literature control of the study.

Chapter 4 is a description of the conclusions and recommendations of this research study.

CHAPTER 2

RESEARCH DESIGN AND METHODOLOGY

2.1 INTRODUCTION

This chapter describes the research design and methodology that were utilised to identify and describe the challenges encountered by nurse educators when teaching research to undergraduate nursing students at a university.

The geographical area and the context in which the study was conducted the population, sample, and data gathering technique as well as the credibility, dependability, confirmability and transferability of the data are described. The ethical principles that were adhered to are also covered.

2.2 RESEARCH DESIGN

A qualitative research design was utilised in this study. Qualitative researchers are interested in understanding the meaning people have constructed, that is, how people make sense of their world and the experiences that they have in the world (Merriam 2009:13). In order to identify and describe the challenges faced by the nurse educators at the selected university, the researcher employed a qualitative research methodology as it was most suitable for describing the real-life experiences of the participants involved.

The research was conducted in a natural setting of the university where the participants were employed. The focus group interview or data collection was done at the site where the participants experienced the problem under study as advised by De Vos, Strydom, Fouché and Delpont (2011:65).

A qualitative, explorative, descriptive and contextual design was considered appropriate for this study.

2.2.1 Explorative

The study was explorative in nature. Exploratory research implies an investigation into the full nature of a phenomenon, the manner in which it is manifested and the other factors to which it is related (Polit & Beck 2012:18). This study was explorative because it explored the challenges faced by nurse educators in teaching research to undergraduate nursing students and supervising their research projects.

2.2.2 Descriptive

The study was also descriptive as it was intended to gain more information about characteristics within a particular field of study (Burns & Grove 2009:237). In this case the challenges faced by nurse educators in teaching research within the study context were described.

2.2.3 Contextual

The context of this study was nurse educators teaching research to undergraduate nursing students and the research supervision of their required research projects in a specific university where a graduate nursing programme was offered for the first time. The participants were educators at the university where research was introduced to their undergraduate students within the past two years since the start of the degree programme.

2.3 RESEARCH SETTING

As described in chapter 1, the intention was to obtain permission to gather data from a university as well as a college of nursing in Swaziland. The study ended up being conducted only at a university, which is situated in Manzini. Despite concerted efforts the nursing college's management did not grant permission for this study to be conducted at their site.

Neither the research proposal and the ethics approval letters nor a full explanation and motivation letter from the supervisor could convince the management about the importance of the research in their context. The study results could have been used to

their benefit in supporting the lecturers who do not have a research background but are expected to teach research. The head and chair of the Nursing College were of the opinion that they would not benefit from the research and that the researcher would gain no appropriate data from the lecturers working in the college since they do not have a research background.

The reasons stated above explains why only the one institution, the university, was used for data gathering. The University started operating in 1956 as a nursing college and is the only college that was “upgraded” in 2012 to become a University and offer a degree programme in nursing. It previously only offered a Diploma in General Nursing (SANU 2011:3).

2.4 STUDY POPULATION AND SAMPLE

2.4.1 Population

The target population of a study refers to particular types of individuals or elements who are the focus of the intended research and from whom data can be obtained (Burns & Grove 2009:343). The population of this study comprised all nurse educators who were working at the university, lecturing research to undergraduate nursing students or supervising their research projects. Ten nurse educators were involved in nursing research education at the time of data gathering and formed the population of the study.

2.4.2 Sampling (unit of analysis)

According to Burns and Grove (2009:343), sampling refers to the selection of a group of people, events, behaviours or any other element with which to conduct a study. No sampling was done as all the nurse educators were asked to volunteer to participate in the study because the number of the nurse educators was only ten. Ten participants proved enough to conduct a trustworthy focus group to gather data within this context. Generalisation was not the intent of the study. Rather the intent was to ensure that the findings might be transferred to similar context. The researcher, as the facilitator, ensured that the questions were exhausted so that all available and rich data could be analysed and interpreted.

2.5 ENTRY INTO THE FIELD

The researcher obtained ethics approval from the Research Ethics Committee of the Department of Health Studies before conducting the study. Thereafter permission from the vice chancellor of the university was sought and granted. All ten nurse educators at the university received information letters regarding the research study and they were invited to participate voluntarily. The volunteers were then asked to make their contact details available to the researcher so that a convenient time and venue could be arranged to conduct the focus group. The volunteering participants indicated that the most suitable and convenient day for them was a Wednesday, from 12 pm to 2 pm.

The researcher promised to remind the participants about the date and time to confirm the appointment. Two days before the date of the appointment, participants were reminded about the appointment and it was confirmed. They all promised to attend the discussion. On the day of the appointment nine participants attended and one formally apologised for not being able to attend.

2.6 DATA COLLECTION

Mouton (2011:123) recommends that researchers must give a clear description of the data collection process, how they gain access to the participants, how data was collected and what procedures were used.

2.6.1 Data collection instrument

The researcher chose a focus group discussion as the method for collecting the data. A focus group discussion consists of a group of people, eight to twelve, with a similar background or experiences, brought together to discuss a specific topic of interest (Shaha, Wenzel & Hill 2011:78; Doody et al 2013:266). The discussion was lead by a trained facilitator (the researcher) who guided and helped the group to participate freely and without negative implications for them.

The focus group discussion was chosen due to the specific advantages of focus group discussions as indicated by various authors (Babbie & Mouton 2007:292; Shaha et al

2011:78). The advantages as explained by Shaha et al (2011:78) prompted the researcher to use focus groups to gather the data from the participants:

The focus group was not intimidating for the interviewees and less time intensive for the researcher than would have been the case in one-on-one interviews. The focus group took two hours, while individual interviews with the ten participants might have taken more than 20 hours. The verbatim transcription of a single two-hour interview is also ultimately much less time-consuming than that of ten separate interviews. All nine participants were interviewed within two hours, but the interaction and the probing between the participants contributed to the richness of the data. The verbatim transcription, however, took sixteen hours.

- The in-depth discussions and answers that were raised in the focus group made for richer data than would have been possible through questionnaires. The interaction and discussion between participants that followed on the questions contributed to more and richer data, because the comment from one participant ensured a reaction or comment from another participant.
- Participants were valued as experts because of the experience and information needed in the research study. The researcher acknowledged the nurse educators as experts because they had their own experiences in teaching research methodology and supervising research projects to nursing students and they described the challenges and suggested strategies to assist them to improve their teaching and research skills.
- In focus group discussions participants tend to be less inhibited than in an individual interview. During the discussion participants were all free to contribute and brought all their individual ideas, which contributed to a lively discussion. The facilitator managed the discussion very well and even those who were quiet were easily observed by the facilitator and were encouraged to become involved in the discussion, which would not have been possible with questionnaires. Participants can forget to return or complete questionnaires, but in a focus group everybody participates and gives their input in a controlled environment.

There are also disadvantages of focus group discussions and the researcher was aware of that. These disadvantages were managed as follows:

- To avoid bias, which could be due to the interview setting, the facilitator, faulty questions and an unrepresentative sampling (De Vos et al 2011:373), the researcher chose a venue that was identified by the participants themselves. The participants were familiar with the venue because it was the conference room at the university where they are lecturers. The seating arrangement was a “u” shape that enabled the facilitator to observe every participant throughout the discussion and to ensure eye contact between the participants and the facilitator.
- Questions were tested through an exploratory interview (see 2.6.3) to ensure that the questions will provide answers in line with the research purpose. The researcher was trained by the supervisor on how to conduct the focus group discussions and how to ask questions and probe further during the discussion.
- Unrepresentativeness in sampling can sometimes be a limitation. In this study all the nurse educators were asked to volunteer to participate, thus no sampling was done.
- Another disadvantage can be that a focus group can be expensive. Costs may include gifts and gratuities for the participants as well as moderator fees, refreshments and travel expenses. The researcher underwent facilitator training at the University of South Africa where she is registered for a Master’s degree. Only once she was found competent was she allowed to conduct the pilot study. The facilitation fees were therefore excluded and the researcher provided only a few refreshments after the discussion. No travelling costs were involved as the discussion took place in a venue at the university and this was the participant’s place of work.

2.6.2 The facilitator

The quality and the expertise of the facilitator of the focus group play a very important role in trustworthiness of the data that is gathered. Therefore, the selected facilitator should be trained (De Vos et al 2011:367). The researcher was trained as facilitator for this study, as required. After training the researcher was allowed to conduct an exploratory interview by testing her skills with a similar group of participants. An expert facilitator and focus group expert assessed the competency of the researcher as facilitator and agreed that she could continue with data gathering. De Vos et al (2011:367) revealed that the facilitator is required to possess essential skills such as

communication and group facilitating skills. The facilitator must also be welcoming, a good listener, familiar with group processes, has an interest in the topic and participants and a sense of humour.

No one else was available and trained on facilitation of the focus group discussion as a result the researcher facilitated the focus group. The facilitator was unknown to the participants and trustworthiness of the data was enhanced. The researcher is a professional nurse and has the appropriate communication skills to engage with individuals as well as groups.

2.6.3 Exploratory interview

An exploratory focus group interview was conducted (see 2.6.4) to ensure that the facilitator is trustworthy and the data is of good quality and appropriate to address the aim of the study will be gathered. The purpose was not only to ensure that the facilitator adhered to the requirements of being a good facilitator but also to test whether the correct questions were asked. The two questions tested were:

1. Please describe the challenges that you are facing when you need to teach research methodology to nursing students or when you have to supervise them when conducting their research projects.
2. Please describe any idea or suggestion (recommendations) on what can be done to support you to teach students research methodology or supervise them on their research projects.

After receiving training to conduct a focus group interview, the facilitator conducted an exploratory interview with volunteer lectures from another university. After the exploratory interview was conducted, the researcher and the supervisor were satisfied that the research questions were clear, that the technique was appropriate and that the data would be gathered in a trustworthy way. The researcher was then granted permission by the supervisor to start with data gathering.

2.6.4 Findings of exploratory interview

Pre-testing of the instrument is the procedure of testing and validating an instrument by administering it to a small group of participants from the intended test population (Barker 2003:339). Those who participate in the pilot study (exploratory interview) should not participate in the main research study (Grinnell & Unrau 2008:179).

On 18 July 2014 the researcher conducted an exploratory focus group interview. The group consisted of six respondents who are colleagues of the researcher. The aim of the pre-testing was to help bring out the weaknesses of the focus group discussion as a data collection technique and then inform the researcher of what to improve on when conducting the actual focus group discussion.

When the researcher started the focus group discussion, there was a lot of noise coming from people outside the room where there was a group discussion. The noise clouded the introductory remarks of the researcher making it difficult to hear. There are also echoes within the room as deliberations unfolded. These echoes could have resulted from the use of a large room with few participants. The choice of the venue for holding discussions was therefore inappropriate. When doing the actual study the focus group discussion was conducted in a venue that was more suitable for the number of participants. The researcher sought to use the board room at the university. It was also well ventilated, had adequate lighting and was isolated from lecture rooms where noise may have been heard.

An information letter was given to all the participants before commencement of the exploratory interview and the researcher decided to leave out some critical information during the introduction. Because this information was not verbally communicated, the participants asked the researcher to clarify a number of issues relating to the study. Participants required clarification on consent forms, the researcher's university, the purpose of the topic and how the study would benefit them and their institution. When conducting the actual study, the researcher made sure to read the information to the participants and also gave them a written copy.

The researcher did not lay ground rules with the participants before going into the core discussion. This resulted in one participant dominating the discussion while the rest

contributed once or twice only. The size of the group could have also contributed to the dominance of the discussions by one participant as alluded to by Musingafi and Hlatjwayo (2012:110). According to them smaller groups are too easily dominated by one or two members. In the actual study the researcher engaged a group of nine participants and laid ground rules that pertain to participation in order to ensure that all participants contributed and shared their views.

Some respondents in the pilot study spoke softly, leading to difficulties in hearing what they were saying on the tape recording. The facilitator encouraged participants to be loud enough when speaking and provided a microphone in the middle of the table during the data gathering for the actual study.

The researcher's first question was phrased in the following manner: "Can you please describe the challenges you faced when you are teaching research methodology to nursing students and supervising their research projects?" The responses given were valid and yet mixed up because the question required description of challenges experienced on two aspects related to research. In the actual study the researcher split the question into two so that the challenges specific to the teaching aspect and the research supervision aspect were kept separate.

The questions that were asked in the actual study were: "Can you please describe the challenges you face when you are teaching research methodology to nursing students?" and "Please describe the challenges you face when supervising nursing students research projects".

2.6.5 The focus group

Preparation of the room

Focus group discussions should be conducted in a venue that is convenient, comfortable and non-threatening (De Vos et al 2011:370). The focus group discussion was conducted at the university. The venue was a boardroom and it was proposed by the participants due to convenience and the fact that the venue was familiar and therefore an unthreatening environment.

The researcher's assistant sat in the corner where he was taking notes. The room had an air-conditioner, which ensured that the room temperature was to the participants' liking. The choice of the venue was appropriate and ideal for a focus group discussion because as (De Vos et al 2005:309) suggested it was conducted in a comfortable, non-threatening setting. The comfort of the participants was regarded as a pre-requisite to the data collection process since discussions would last for more than an hour. The absence of any of the educators' supervisors or persons in management contributed to creating a non-threatening environment.

A table with two tape recorders was set right at the corner of the room so that it would not be consistently in sight of all the participants. The tapes were operated by the trained observer - the researcher's assistant - who took the field notes during the interview. One tape recorder was battery operated and another one was electrically operated. They were running simultaneously in case of mechanical or electrical failure to ensure that no data would be lost.

2.6.6 The focus group discussion

On the set date and time (28 July 2014 at 12:00) the focus group discussion was conducted. Unfortunately only nine of the ten participants attended. One participant was unable to attend due to personal circumstances. The researcher greeted all the participants and introduced herself and the observer who would be taking field notes during the discussion. The researcher asked all the participants to take a chair anywhere around the table. When all were seated, the discussion officially started.

Participants were thanked for their time and honoring the invitation to participate. The facilitator again explained the purpose of the study and the content of the consent letter to all the participants to ensure that they give informed written consent. It was again emphasised that they could withdraw if they did not want to participate.

They were made aware of the tape recorder and the importance of tape recording was explained to them. Participants were assured of confidentiality and that it would be maintained. The information gathered and comments made during the discussion would not be linked to anyone who participated in the study. It is only the supervisor and the

researcher who would have access to the tape recorder and it would be kept in a safe, locked place. They were then asked to sign the consent forms.

The researcher set the ground rules for the session with the participants and came to an agreement that during the discussion only one person would talk at a time and that they would respect each other. All participants would have an equal opportunity to participate in the discussion and should feel free to raise his/her opinion. Participants were encouraged to express themselves without fear that their ideas would be criticized. They were encouraged to ask any question if they were not clear before the discussion commenced.

2.6.6.1 Food

Participants were provided with bottled water during the discussion and treated with a snack at the end of the discussion. This is supported by (De Vos et al 2005:309) who state that when conducting focus group discussions, no matter what the location, always consider providing food, since eating together tends to promote conversation and communication within the group.

2.6.6.2 Mood

Participants were in a friendly mood. The researcher had an informal talk with them just before the formal discussion started in order to create a positive and warm relationship as well as a positive attitude. This is essential for the success of the discussion. Informal talking is supported by De Vos et al (2005:310) who argue that small talk is essential prior to a focus group discussion to enhance the creation of a warm and friendly environment that will put participants at ease.

2.6.6.3 Introduction

The researcher opened the discussion by introducing herself to participants and thanking them for participating in the study. All participants were then asked to introduce themselves. The researcher introduced the observer and explained the assistant would be managing the tape recorders and asked the participants to be audible for tap recording purposes.

The researcher outlined the purpose of the study and that the information gathered from them would be kept confidential. Participants were encouraged to be free when making deliberations during the discussion. She requested them to feel free to participate and raise any issue or comment relating to the study purpose. The researcher told them that they reserved the right to withdraw from the discussion at any point if they felt like it, without any coercion or penalties. Participants were given consent forms, which they read and signed.

The introductions were conducted according to the required standard as already described and is supported by (De Vos et al 2005:310). The discussion went smoothly and the facilitator was focused on the key elements of the study. The participants were involved and everyone contributed. Those who were quiet in the beginning were invited to share their ideas with the entire group and they then did so.

2.6.7 Questions asked

The following questions were asked during the interview:

1. Please describe the challenges that you are facing when you need to teach research methodology to nursing students.
2. Please describe the challenges that you are facing when you have to supervise them when conducting their research projects.
3. Please describe any idea or suggestion on what can be done to support you in teaching students research methodology.
4. Please describe any idea or suggestion on what can be done to support you in supervising them on their research projects.

The researcher used communication skills like silence, summarising, validating and probing (Powell & Connaway 2004:152) to ensure that all participants participate and that the best possible data was gathered.

After the four questions were exhausted and no more information could be gained, the researcher concluded the group discussion by summarising the main points of the discussion to make sure that it was a true reflection of what was discussed during the focus group discussion. Everybody was then thanked for their time in participating. The

researcher's summary was in line with De Vos et al (2011:372) who mentions that it is important to summarise the main points to make sure that all points that were discussed were captured and convey the appreciation for the participants' contribution.

Finally, the researcher explained to participants that before the findings are finalised, she would make a presentation to them so that they can approve the accuracy and have an opportunity to comment on the extent to which the data reflects what transpired in the focus group discussion. She thanked the participants for their voluntary participation in the study and their valued contributions during the discussions. Participants were treated to a snack lunch after the discussion.

2.7 TRUSTWORTHINESS

Polit & Beck (2012:745) define 'trustworthiness' as the degree of confidence qualitative researchers have in their own gathered data when using the criteria of credibility, transferability, dependability and confirmability. These criteria were used to enhance the trustworthiness of this study.

2.7.1 Credibility

De Vos et al (2011:419) explain credibility as the principle for evaluating the integrity and quality in qualitative studies. It refers to the researcher's confidence in the truth of the data that was gathered. The researcher enhanced the study's credibility by bracketing personal feelings and experiences on research teaching and supervision that might have influenced the results of the study.

The researcher did an exploratory interview to ensure that the questions would provide answers in line with the research purpose. The researcher was trained and approved to be a competent facilitator. The research proposal went through the approval of the ethics committee of the Department of Health Studies for constructive criticism. Participants were allowed access to the summary of the findings to verify if the findings were a true reflection of what transpired during the discussion.

2.7.2 Dependability

The dependability of a study is the researcher's account of the changes inherent in any setting plus changes to the research design as learning unfolded (Wise 2011:1). The focus group discussion took place in a safe environment that allowed the participants to participate freely and willingly. The research methodology and the context of the study were described (Botma, Greeff, Mulaudzi & Wright 2010:234) to enhance dependability. The focus group discussion was tape recorded and verbatim transcripts were made along with field notes relating to the group dynamics. The researcher coded the transcribed data and the co-coder, came up with similar codes. The data was kept secured to allow an independent audit.

The supervisor also examined the data, findings, interpretations and recommendations in order to demonstrate that all was supported by data as a further means of establishing dependability.

2.7.3 Confirmability

Confirmability refers to the degree to which the results of a study can be confirmed or corroborated by others (Trochim 2006:1). The researcher enhanced confirmability by documenting all the procedures used for checking and rechecking the data throughout the study. A good data trail was to be ensured by the description of the data gathering and analysis process as well as the context of the study.

2.7.4 Transferability

The transferability of a study is the extent to which the findings of a study can be applied in other similar contexts or with other respondents (Botma et al 2010:233). The context was clearly described and a clear data trail was left. It will therefore be possible for any other researcher to assess and decide on the applicability and transferability of the gathered data to similar contexts.

2.8 ETHICAL CONSIDERATIONS

The ethical consideration of a study is the protection of the dignity of participants from harm during the study (Fouka & Mantzou 2011:3). Ethical principles are important when conducting any research study that involves human participants and therefore the following principles were adhered to.

2.8.1 Beneficence

Grinnell and Unrau (2008:36) explained beneficence as an obligation to maximise possible benefits and to minimise possible harm. All participants participated in the research study voluntarily and it was explained to them that they could withdraw from the study at any stage without any negative results. Anxiety was allayed before the discussion started; some of the participants had a feeling that the information discussed might be disclosed to the management. Confidentiality was assured and no information could be linked to the name of the participants.

2.8.2 Privacy

Privacy in a study means keeping things to oneself (De Vos et al 2011:119). The researcher ensured privacy by not linking the gathered data to any specific participant. The participants were numbered when the transcripts were done from the tape recorders to ensure that the data gathered would not be linked to their names. The tapes were locked in a safe place and it was only the researcher and the supervisor who had access.

2.8.3 Respect individual autonomy

Autonomy in a study means the freedom to decide what to do (Australia Government National Health and Medical Research Council 2014:4). Participants were allowed to decide whether they wanted to participate in the study. They were made aware that they were free to withdraw from the study at any time without giving a reason. No one withdrew from participating in the focus group discussion.

2.8.4 Justice

Justice in this case refers to the criteria for inclusion and exclusion of participants in a research study (Australian Government National Health and Medical Research Council 2014:4) and whether all had an equal chance to be included. All the nurse educators were asked to participate in the research study therefore all had an equal chance to participate.

2.8.5 Permission

Before proceeding with the study the researcher obtained ethics approval from the Higher Degrees Committee of the Department of Health Studies (Research Ethics Committee) (see annexure A). Written permission was received from the Vice Chancellor of the Southern Africa Nazarene University, the Dean as well as the participants themselves (see annexure C). The researcher submitted a request for authorization to the university to conduct the research study (see annexure B). The researcher managed to get access to the nurse educators through the dean who acted as gate keeper and introduced the researcher to them (see annexure D).

2.8.6 Consent

Consent in a study means that the participants are given the opportunity to choose what should or should not happen to them (Grinnell & Unrau 2008:37). Written consent from the participants was obtained and they voluntarily signed the consent before participating in the study. The participants were informed of their rights to volunteer to consent or decline to participate and to withdraw participation at any time without any penalty or consequence. They were also informed about the purpose of the study and the procedures that were used to collect the data. They were assured that there were no potential risks involved in the study (see annexure E).

2.8.7 Confidentiality

Confidentiality in a study means information gathered about an individual or participant during a research study would never be divulged without their permission (Northeast Ethics Education Partnership 2012:2). Confidentiality was maintained by not revealing

the participants' identities in the transcripts, the research report or any published material arising from the study. Identities were protected by the use of numbers instead of names and no statements could be attributed to a specific person. Hard copies of the data, paper copies of field notes and tapes were stored in a locked filing facility on the researcher's premises. Only the researcher and research supervisor had access to the raw data from the study.

2.8.8 Post-research relationships

The research report will be available to the University of South Africa and a copy to the Southern Africa Nazarene University. The results will be communicated via a publication in a peer reviewed scientific journal.

2.9 DATA ANALYSIS

Data analysis involves working with data, organising it, breaking it into manageable units, synthesising it, searching for patterns, discovering what is important and what is to be learned as well as deciding what there is to communicate to other people (Mouton 2011:108). The researcher analysed the information obtained from the focus group discussion into themes categories and sub-themes (see table 3.1) according to the following step-by-step framework suggested by Tesch in Creswell (2009:186).

Step 1

The researcher began with careful listening and re-listening to the audio tape as well as reading the field notes many times to get the meaning from the data. It involves the consideration of words, tone, context, utterances, responses and the ideas of the interviewees. From the audio tape the researcher developed a verbatim transcript where every word and sound was written down.

Step 2

The transcript was read again to understand the underlying meaning and emerging concepts, categories were written in the transcription's margins.

Step 3

The verbatim transcript was read many times and similar themes were grouped together.

Step 4

The researcher went back to the data and read it again to check for new themes.

Step 5

Descriptive words or phrases were identified and selected as categories and were then converted into themes to reduce the number of similar themes.

Step 6

The researcher then made a final decision on which themes and categories would be included.

Step 7

In order to highlight themes, categories and sub-themes, corresponding data were placed under each theme.

Step 8

The researcher then discussed and described the, themes, categories and sub-themes and made them simple and well understood to anyone who might be interested to use the research study.

2.10 CONCLUSION

Chapter 2 provided a description of the research methodology, the population, data collection instruments and strategies used to ensure that the ethical standards and trustworthiness, which included transferability, confirmability, dependability and credibility, were adhered to. Chapter 3 will provide a reflection of the data analysis, data interpretation and the literature control of the study. The data analysis and the literature control will thus be presented in an integrated way.

CHAPTER 3

DATA PRESENTATION, INTERPRETATION AND LITERATURE CONTROL

3.1 INTRODUCTION

In chapter 2 the research design, methods and instruments used in the collection of data was outlined. In this chapter the analysed and interpreted data collected from nurse educators at the university under study will be presented. The results and data interpretation will highlight the extent to which the findings concur with existing and published literature.

The data were analysed as explained under section 2.9. The following categories emerged as challenges experienced by the nurse educators: inadequate human resources, lack of physical resources, lack of research skills and competencies, policies, student perceptions and support from management. Under these themes, categories emerged, statements, in the format of direct relevant quotations from the participants, are used to substantiate specific themes identified during the data analysis, as indicated in table 3.1.

The participants highlighted what they proposed should be done to support them in the second question that was raised during the focus group discussion. This is indicated in red color in table 3.1 to ensure that the suggestions match, where applicable, with the already identified categories and themes.

The data, the data-interpretation and the literature control will be presented in this chapter in an integrated way. This is done to enable easy reading of the text and to illustrate the similarities and differences between this study's results and the evidence found in relevant recent literature.

Table 3.1: Themes, Categories, and Statements Pertaining to Challenges Faced

Themes	Categories	Statements
Human Resources	Student to Lecturer Ratio Too High	<p>“... one challenge is the number of lecturer student ratio, that one needs to supervise ... the number is more than one can take, which compromises the quality of work ...”</p> <p>“... we are having a problem with numbers, the ratio is not good, that of students against lecturers ...”</p> <p>“The issue of human resource will even become worse when the students begin to do their projects”.</p> <p>“...you find that it’s kind of a challenge to give assignments, work to students because it becomes a big marking load ... that again it compromises research...”</p> <p><i>“... if we can enroll a number of students that can support a smaller ratio of lecturers to students ...”</i></p>
	Not Enough IT Personnel	<p>“... we don’t have enough IT personnel. It’s now a big institution, but we just have only one person in the IT.”</p> <p><i>“We also need more IT officers to also assist within the institution and the library”.</i></p>
	Too Few Librarians	<p><i>“You find that there are so many students that are there and ... you find that there is only one library attendant there”.</i></p> <p><i>“... we also need human resource so in the library...”</i></p> <p><i>“Yes, actually the library books should be checked now and again. I have been to University of Botswana, there you know, there are some people every day, there are people busy checking days and taking out books to another room, removing old books from the shelves and putting new ones”.</i></p>
Physical Resources	Library Problems	<p>“... our library is small to accommodate all the number of students ...”</p> <p>“The library sometimes closes and then it restricts access by students”.</p>

Themes	Categories	Statements
		<p><i>"... there is need to extend our library, whether going up or sideways..."</i></p> <p><i>"... we need to extend library working hours ..."</i></p>
	Inadequate Books	<p>"... another challenge, it's the books, some of the books are there but they are old ..."</p> <p><i>"... yes, actually the library books should be checked now and again. I have been to the University of Botswana, there you know, there are some people busy checking days and taking out books to another room, removing old books from the shelves and putting new ones..."</i></p>
	Lack of Journals	<p>"... also that of the journals we don't have enough ..."</p> <p><i>"I think the issue of getting journals ... I think they need to subscribe to more journal publishers ..."</i></p>
	Lack of Data Sources	<p>"... we live in the technology era, it's quite a challenge, and there are sites which students are not allowed to access like YouTube ..."</p> <p><i>"They need to be told about the importance of those sites". "You know, YouTube gives you the whole world so it's just a matter of making sure that they visit the relevant sites on YouTube".</i></p>
	Problems with Technology/Computers	<p>"... fine the university does have computers so that even when students want to do research there are not enough computers, number of computers does not tally with the huge number of students we have".</p> <p><i>"We need to get more computers".</i></p>
Research Skills and Competencies	Lack of Research Experience and Competency	<p>"I feel like I am dead because I do not have the experience, hence experiencing challenges ..."</p> <p>"... this is all new and so even us, we have never supervised anybody".</p> <p>"Mine will be the standard of education for nurse educators, most of us are capacitated up to a master's degree or beneath, somehow I feel like we are dead".</p> <p>"... yes most of us are not capacitated up to the level of a master's degree ..."</p>

Themes	Categories	Statements
		<p><i>“... we will need a three day workshop, from an expert, to bring us on board. I believe that this workshop will help”.</i></p> <p><i>“Like a workshop, I think one workshop to the educators so that they match their research skills and knowledge.”</i></p> <p><i>“Think the best thing is to have more guidance, I think we all need to follow guidelines and be guided by someone with an experience in supervising research during the supervision of the research projects since we have no experience”.</i></p>
	Lack of Research Guidelines	<p>“... another challenge is that we do not have a laid down framework on how to go about the research, so each and every lecturer will do what he or she knows”.</p> <p>“... the only thing that is missing are the guidelines on how to conduct the projects by the students ...”</p> <p><i>“... and as for guidelines. Speed up the guidelines, make sure they are prepared before we start supervising research projects.”</i></p>
	Diverse Educational Backgrounds	<p>“Even us as nurse educators, I foresee a challenge that we are coming from different institutions, I’m from there and the other one is from there.”</p> <p><i>“We need the workshop to synchronise our different thoughts and put us on board and we need more guidance ...”</i></p>
Policies	Ethics Committee Matters	<p>“... you cannot easily see the ethics committee you just see the secretary who tells you about the number of people you have never seen you are told you are not going to start your project before you get the green light from the ethics committee, so it’s a challenge”.</p> <p><i>“I think we need to set up our own research ethics committee which can do smaller scale research that are done by students at the university.”</i></p>

Themes	Categories	Statements
		<i>"I think the research ethics committee should decentralise its powers ..."</i>
	Time Limitations	<p>"The time given to the project is very short, especially now during the semesterisation, so that students do not comprehend the instruction, then the timing makes it difficult to apply."</p> <p><i>"... research methodology should be done in the third year and research projects from the first semester in fourth year ..."</i></p>
Students' Perceptions	Student Attitudes	<p>"When you start teaching a student research methodology, it's something new, so they feel it's very difficult because it's different from other nursing subjects".</p> <p>"... they want everything to be done for them ..."</p> <p>"I can say that there is lack of passion from the students to read or research."</p> <p><i>"Nurse educators need to explain the importance of research right from the beginning of their training so that by the time they start the research methodology and research projects; they will say "ya that's it ..."</i></p> <p><i>"What we need to do is to change attitude and say it (research) is doable."</i></p> <p><i>"I think the strategy is to role model the students so that they see it's not difficult, show the interest of the lecturer..."</i></p> <p><i>"Maybe if we improve our motivation, the culture of research will improve where we conduct research and present to the whole school so that the students may develop some passion for research."</i></p> <p><i>"Also we can pick some projects that have been done by the students and also present them and all the student bodies there, present to their colleagues and to us teachers and that would help the upcoming researchers to develop the attitude of saying I want to go out and do research so that I can be picked and present my study. We can also have as faculty, we can be actually developing mini-studies if I can do this study then it can be a good thing for me."</i></p>

Themes	Categories	Statements
		<p><i>"Have kind of conferences to strengthen research skills because some of them may not even go say for their masters and PhD but they do need a step in the right direction."</i></p> <p><i>"We can give assignments to the students from year one, I think they must have an element that will encourage the student to go and research, so that when they come to level three where they actually do theory, of research methodology, will actually have done a number of research pages."</i></p>
University Management	Affective Support	<p>"Management does not support when the lectures raise issues they just promise and never address the issues ..."</p> <p><i>"Hope this study has come at the right time and it will rescue us and the results and report of the study will fall to the right ears."</i></p>
	Financial Constrains	<p>"It is demotivating because the management does not give us financial support when we are doing our research and when we want to go and present in conferences."</p> <p><i>"Funds must be mobilised to support nurse educators when conducting research and when they want to go and present research papers in conferences."</i></p>

3.2 BIOGRAPHICAL DATA

The participants in the focus group discussion comprised of six female and three male nurse educators as well as the facilitator and her assistant. One male educator could not attend the discussion due to personal circumstances and apologised in advance. The size of the group was quite appropriate as alluded to by Musingafi and Hlatywayo (2012:102) who stated that in focus group discussions, a small number of individuals, ranging from seven to twelve people are brought together for interviewing. The size of this group falls within the stipulated category and allowed for the effective participation of all members. Both sexes were represented in this group thus eliminating gender bias in the presented views. Although the distribution of gender was 70% female and only 30% male, this is representative as the nursing profession is normally dominated by female nurses. In Swaziland the current ratio is 7:3 (Swaziland Nursing Council 2010b:13).

3.3 CHALLENGES FACED BY EDUCATORS

Nurses use research to provide evidence-based care that promotes quality health outcomes for individuals, families, communities and healthcare systems. It is imperative that nursing education institutions produce quality nurse researchers who will ensure quality outcomes for patients, families, healthcare providers and the healthcare system (Mellish et al 2009:324). This may only occur with increased exposure to nursing research. Nursing education should therefore ensure that students are well prepared to provide evidence-based care, by participating and conducting research (Courtney & McCutcheon 2010:12; Henard, Diamond & Roseveare 2012:12; Roberts 2013:4; SNC 2010a:7). Research must form an integral part of nursing practice, education and administration. This can only be achieved if research-mindedness in nurses is fostered right from the beginning of their education (Courtney & McCutcheon 2010:12). In order to produce competent nurse researchers, nurse educators should be clear about research methodology and how to provide quality research supervision (Mellish et al 2009:324; SNC 2010a:7; Roets 2013:12).

Institutions play a pivotal role in fostering a positive research culture. Various aspects are to be considered if research is to be promoted in an institution. Some of these important aspects are (1) a positive research culture (2) experienced and competent

research supervisors (3) support personnel (librarians, statisticians, editors, information technology personnel, (4) physical resources (which include a library, classrooms, equipment and supplies, e.g., computing, books, journals, laboratory), and (5) management support by ensuring the availability of research funding and decentralised research policy (Salazar-Clemeña & Almonte-Acosta 2007:1). All the above mentioned aspects are vital for preparing nursing students who are experts in research and provide quality care that is evidence based (Courtney & McCutcheon 2010:18).

3.3.1 Human resources

Any institution that wants to promote a research culture and research education needs to invest in its human resources. Human resources include an investment in trained and experienced research supervisors at a manageable supervisor student ratio as well as other specialised staff. Specialised staffs that contribute largely to research teaching and conducting research include information technology (IT) personnel and librarians (SNC 2010a:17; Henard et al 2012:17).

3.3.1.1 Lecturer/student ratios

Institutions need experienced research supervisors that can act as mentors. These educators should be competent in research methodology. The supervisor student ratios should be manageable, and research supervisors should not be allowed to supervise more than six research projects at any given time (Monash University 2014:6) yet at some institutions there are supervisor/student ratios of about 1:16 for an experienced supervisor (Roets 2013b:12). Participants were of the opinion that:

“The educator/student ratio is low, culminating from large student enrolment figures that do not match the available human resources.”

At the university under study, the educator /student ratio is 1:90 for theory teaching sessions, like the module on research methodology. If these lecturers have to supervise the same number of students when they are writing their research proposals, this situation will be even worse, as emphasised by the participants:

“The issue of human resource will even become worse when the students begin to do their projects.”

The ideal ratio for a classroom setting is between 20-30 students per nurse educator (Nursing Board Malaysia 2010:13) and not 1:90 as proven to be the case at the university under study. The plea to enroll more students to address the shortage of nurses complicated the situation to the extent where quality research teaching and research supervision was compromised (AACN 2006:13) due to the unacceptable high student/educator ratios. The shortage of nurse educators has significant implications for the long-term research productivity of the discipline if this is not addressed as a matter of urgency.

The high student/educator ratio has the likelihood of increasing the workload associated with supervising research projects. This may compromise the quality of research projects produced by students since educators or research supervisors may not have the time or the experience to do quality supervision of students' research projects. Gill (2004:879) emphasised the importance of promoting research culture to the nurse educators by reducing the teaching and supervising workloads of the nurse educators to allow them time to actively do their research. The participants suggested that the number of students enrolled should be reduced.

“If we can enroll a number of students that can support a smaller ratio of students to lecturers...”

As mentioned above, the participants suggested that the university should enroll a manageable number of nursing students to enhance the quality of supervision.

3.3.1.2 Not enough IT personnel

To support supervisors and students in their research activities, to promote a positive research culture and produce quality research, specialised staff such as information technology personnel is needed (SNC 2010a:17; Henard et al 2012:17). Due to the complexity of research, and the fact that it is highly dependent on technology, increased support of information technology in research deserves a high priority and thus there is need for the institutions to ensure that there are an adequate number of skilled IT

professionals in the organisations (Bichsel 2012:1; Grajek 2014:2). IT professionals furthermore assist in the maintenance of IT tools such as computers, creating and maintaining software, accessing reliable information, and analysing collected data when conducting research (AACN:2006:13). IT professional is a very important human resource that needs to be available to both research students and research supervisors.

The participants during the research study considered IT personnel important when teaching and supervising research projects. The participants indicated the shortage of IT personnel at the university as a challenge and mentioned that:

“The shortage of IT officers is a challenge; we don’t have enough IT personnel. It’s now a big institution, but we just have only one person in the IT ...”

“One IT officer cannot service the whole organisation by himself. If the IT person is held up somewhere and you need his services, you cannot have an access to the services and that is a de-motivating factor in terms of research.”

One IT person who services the library, the students, the lecturers and the entire institution is not sufficient as indicated by the participants. According to SNC (2010a:21) all institutions should ensure that adequate human resources, including IT personnel, are available to support the development and implementation of programmes, like research. Inadequate technical support, provided by IT personnel is an obstacle to the use of information technology when conducting and supervising research projects (Hegney, Buikstra, Eley, Fallon, Gilmore & Soar 2007:5).

The participants recommended that the university should employ adequate numbers of IT personnel who will provide quality services to both nurse educators, research supervisors and nursing student students (SNC 2010a:13).

“We also need more IT officers to assist within the institution and the library ...”

3.3.1.3 Too few librarians

To ensure the production of quality nurse researchers for the future of the nursing profession, adequate academic support services such as librarians should be readily

available at educational institutions (CCNE 2013:10). Librarians are responsible for providing searching tips of reliable information when assisting researchers who teach research and conduct research studies (Schulte & Sherwill-Navarro 2009:57).

The participants viewed having one librarian for an entire institution as a challenge because the university has grown and is offering degree programs, like nursing, which they did not have in the past. A very large number of students are enrolled at the university but only one librarian is available:

“The university has grown and still there is only one librarian who is providing services to the huge number of students and research supervisors. Looking at the number of students enrolled at the university versus the only one librarian who provides the services in the library. It also causes a challenge to the nurse educators who teach research methodology and supervise research projects for the nursing students.”

According to the participants, the lack of librarians is a great challenge; it affects their research teaching as well as research supervision:

“You find that there are so many students there. And you find that there is only one library attendant there ...”

Adequate numbers of librarians are needed at an institution like a university to provide adequate services, such as searching for reliable and relevant information that is required in research, to both the nursing research students and research supervisors (SNC 2010a:13). The participants suggested that:

“We also need human resource, so in the library ...”

If there is a shortage of such important services this will result in poor quality research projects as well as a poor research culture.

3.3.1.4 *Language and technical editors*

Although the participants did not identify expert language editors as important people to assist with research projects or ensure quality research outputs, it is very important to have trained and certified language and technical editors to present the research report in an acceptable academic format (Polydoratou & Moyle:2008:79). These people are responsible for ensuring the quality of both the language use as well as the technical presentation of research reports.

In Swaziland the majority of the population speaks SiSwati as their mother tongue and English as their second language. Therefore, English language editors are important at the university to ensure that research reports are presented in correct English (Derntl 2014:106).

Universities also need technical editors to assist nursing students and nurse educators to ensure that research reports produced during the research study meet the requirements in terms of spelling, punctuation and grammar (Rude & Eaton 2010:13).

3.3.2 Physical resources

According to the SNC (2010a:13) and CCNE (2013:10) physical resources include sufficient space such as libraries and classrooms but also equipment and supplies, like computers, to enable the students and nurse educators to teach research methodology and supervise research projects to nursing students.

The physical resources required to effectively teach research in an environment that promotes a culture of research are for example well equipped libraries with computers, research books, scientific journals as well as access to databases (SNC 2010a:13).

Nursing education institutions, responsible for the training of nurses and equipping them with research skills, struggle to acquire and maintain sufficient and recent material to reference too (Nick 2011:1). This limitation hampers the improvement of a research culture and creates a problem with evidence-based practice.

3.3.2.1 Library problems

A positive research culture can easily be cultivated in an institution or university that provides access to a library with enough space, computers, research sources (books and journals) and access to the internet and databases (Eizenberg 2011:34; Adeoye & Popoola 2011:1).

Adeoye and Popoola (2011:1) define a library as the store house of knowledge and information that provides both access to information resources and the information required for research and evidence-based practice. A library contributes to the production of quality nurse researchers that are prepared for lifelong education. Libraries are important in helping academics generate information for the purpose of effective research teaching and research supervising of students.

The participants were of the opinion that:

“Our library is small to accommodate all the number of students.”

They therefore suggested that:

“... there is a need to extend our library, whether going up or sideways ...”

A small library limits the accessibility of the required information and can lead to poor research projects (Eizenberg 2011:34).

Not only is the library as well as the resources available important, but access to the library is important. Educators, students and supervisors have to spend time acquiring reliable information for research studies and the library should be accessible to them (Marshall, Morgan, Klem, Thompson & Wells 2014:1). The participants felt that the library at their institution was not accessible:

“The library sometimes closes and then it restricts access to students”.

“We need to extend library working hours”.

The extension of the library hours allow access to the library at times suitable for the student or supervisor who are many times only available to access the library after normal working hours.

Institutions need to make funds available for a library to subscribe to more scientific journals; buy books, computer software programmes and computers; and provide internet access. Enough competent staff should be appointed to cultivate and enhance a culture of research in the university. In support of this view the AACN (2006:13) contends that financial support should be made available within departments of schools, in larger academic institutions and at national level to promote research culture and produce quality researchers.

It is of utmost importance that the library be expanded and furnished to provide adequate research infrastructure and support to students and supervisors. This is vital for strengthen nursing research and contributing to the public's health and healthcare outcomes in a positive way (Eizenberg 2011:34).

3.3.2.2 *Inadequate books/literature/journals*

Research requires that recent literature and facts, that is normally very short-lived, due to the continuous development and change of theories (Nick 2011:1), should be available to students and staff. The rapid changing of what the world knows about the nursing discipline makes research teaching and supervising more important and recent literature a necessity (Johnson, List-Ivankovic, Eboh, Ireland, Adams, Mowatt & Martindale 2010:45).

Participants were of the opinion that their library lacks recent books and literature:

“Another challenge, it's the books, some of the books are there but they are old
...

Participants recommended that:

“Books need to be checked all the time like the University of Botswana. There are people who remove the old books on a daily basis and replace them with new ones.”

To promote quality research, the institutions should have up-to-date and relevant information sources (Adeoye & Popoola 2011:9). Studies revealed that research and research supervision is more successful when the university provides access to new sources of information such as journals (Eizenberg 2011:40). Reading academic journals and conference papers enable students to become acquainted with the culture and language of the discipline and thus the supervisors should recommend appropriate reading lists (Johnson et al 2010:46). The participants considered the shortage of journals as a challenge when teaching and supervising research to nursing students.

“... also that of the journals we don't have enough ...”

And therefore participants' mentioned:

“I think the issue of getting journals; I think the university needs to subscribe to more journal publishers.”

It was suggested that: the university should subscribe to more scientific journals to ensure that both nursing students and the nurse educators have access to journals when they are doing their research projects and supervising research students.

Since the university does not have enough resources such as books and journals, the researcher recommends the use of the interlibrary loan facility and that collaboration with other libraries be established so that both the students and nurse educators have access to study material that is not available in the university library as is the case in other universities (University of Aberdeen 2015:1).

The use of technology enables learners to have access to information. Students work through their course content and research projects at their own pace (University of

Western Australia 2013:3). Participants felt the lack of data sources and the accessibility of technology to be a very big challenge:

“We live in the technology era, it’s quite a challenge, and there are sites which students are not allowed to access like YouTube ...”

“They (students) need to be told about the importance of those sites.”

“You know, YouTube gives you the whole world so it’s just a matter of making sure that they visit the relevant sites on YouTube and that will help improve the culture of research at the university.”

Not only is access to sites like YouTube needed, but there should also be access to databases, e-journals, e-books, encyclopedias, dictionaries and numeric data (Lawrence Berkeley National Laboratory 2014:1). In Swaziland nurse education institutions are required by SNC to provide adequate resources (SNC 2010a:13) as students, educators and supervisors need these resources. They need computers to enable them to have access to the internet, e-journals and software programmes. Computers and computer access are essential to allow for communication and feedback between students and the research supervisors when giving electronic feedback (Roets 2013a:147).

However, the participants in this study revealed that inadequate access to computers are a challenge:

“... the university does not have enough computers so that even when the students want to do research they find that there are not enough computers.”

“... number of computers does not tally with the number of students we have...”

“... the university has a huge number of students and if per course per level. We have more than 90 students and we have very few computers. We need to get more computers.”

3.3.3 Research skills and competencies

3.3.3.1 *Experienced supervisors:*

Institutions should have experts in research and research supervision to supervise students through their research journey (Washington State Legislator 2013:4). For quality education in teaching research, the institution should therefore consider the recruitment of experienced nurse educators in research supervision to assist in mentoring novice supervisors (Salazar-Clemeña & Almonte-Acosta 2007:1; Roets 2013b:12).

Nurse educators who teach research and supervise students in research projects should have sufficient knowledge and skills that will enable them to teach research methodology and supervise students to conduct quality research projects (Hughes & Ferrett 2011:72). Knowledge is an important characteristic of any nurse educator. The experience and the expertise of the nurse educator can influence the quality of the future nurse researchers as well as the quality of the research projects because there is evidence that experienced supervisors can manage challenges easier than inexperienced supervisors (Roets 2013a:144; Gill 2004:877). Having experienced supervisors will lead to the production of quality research and quality research projects.

In order to encourage research-mindedness, a basic level of competency in research is needed by nurse educators. Nurse educators need to be clear on the nature of research and be able to teach students how to understand, evaluate and apply research. Educators and research supervisors should be able to delineate research activities for nurses at different educational levels. Nurse educators should also incorporate research findings into their lectures and teaching encounters, engage in research or related activities and publish findings as part of their professional role (Mellish et al 2009:324).

An experienced research supervisor is a nurse educator who has experience in supervising students towards successful completion of research projects and has supervised research projects for a number of years under supervision of an experienced supervisor. An experienced supervisor has knowledge of and interest in the research topic of the student, and experience in reviewing publications. He/she is in possession

of at least a master's degree or a Doctoral degree (Mouton 2011:28; Kiley 2011:588; Siddiqui & Dwyer 2012:531).

The participants felt that they were inexperienced and saw this as a challenge:

"I feel like I am dead because I do not have the experience and we have never supervised any student, hence we are experiencing challenges."

"... most of us are not capacitated to the level of a master's degree."

Inexperience and the level of research education was a real challenge for these educators as it is expected of them to support students, but none of the nurse educators have supervised any research student before.

Factors that largely contribute towards producing quality nurse researchers is the quality teaching of research, the mentoring of students as well as quality research supervision (Roets & Maritz 2013:69). Normally this is the responsibility of experienced and competent supervisors.

It is the responsibility of research supervisors to provide regular and consistent supervision, mentoring, guidance and research education to their students (Monash University Institute of Graduate Research 2014:4). Nurse educators that lack experience in research supervision like the nurse educators from the university under study might not be clear about the extent and quality of research. This may lead to numerous problems such as production of poor nurse researchers who produce research projects that do not meet the standard requirements (Hutchinson & Johnston 2004:306).

Not surprising, the participants recommended that:

"A workshop is important for us nurse educators to put us on board since we have never supervised a research project."

“... think the best thing is to have more guidance, I think we all need to follow guidelines and be guided by someone with experience in supervising research during the supervision of the research projects since we have no experience.”

It is clear from the literature that supervisors really need training to support them in their supervisory role (Mellish et al 2009:333; Hughes & Ferrett 2011:72). Experienced research supervisors should be engaged to mentor the inexperienced nurse supervisors through co-supervision until they are competent to supervise on their own (Murnan, Cottrell & Rojas-Guyler 2009:17; Roets & Botma 2012:6). Gill (2004:879) revealed that some nursing schools improved quality research teaching and quality researchers through the appointment of an experienced senior researcher at a level of a professor to support, set workshops to teach the novice research supervisors' core research skills.

Institutions should ensure that research competence is build among research supervisors by providing the relevant training amongst the nurse educators. For quality education in teaching research, the institution should also consider the recruitment of experienced nurse educators in research supervision who will assist in the mentoring of the novice supervisors (Salazar-Clemeña & Almonte-Acosta 2007:1; Roets 2013b:12).

3.3.3.2 *Lack of research guidelines*

To ensure quality research supervision there is an urgent need to develop guidelines that will clarify the training of supervisors. The topics covered in such training can include online communication skills, providing feedback to students, building a relationship between students and supervisors as well as the selection and allocation of students to be supervised (Roets 2013b:4). The guidelines should be communicated to the students and the supervisors, clarifying what is expected from each of them.

Participants were aware that guidelines for research supervision are important, but there was a lack of guidelines available.

“... another challenge is that we do not have laid down guidelines on how to go about the research, so each and every lecturer will do what he or she knows.”

“... the only thing that is missing is the guidelines on how to conduct the projects by the students.”

“... and as for guidelines. Speed up the guidelines, make sure they are prepared.”

The absence of laid-down guidelines to regulate the conduct of research and supervision of research projects may lead to a situation where students move from one educator to another, seeking research supervision assistance. Students may end up seeking assistance from educators they consider to be more knowledgeable than others (Roets 2013b:4). This could result in a conflict between educators who may be applying different systems and standards given that there is no homegrown instrument for regulating research projects (Gallagher 2013:2).

3.3.3.3 *Diverse educational backgrounds*

Nurse educators have different qualifications and educational backgrounds. The absence of an instrument for regulating the conduct of research projects gives way to an individualised system of supervising research according to each educator's understanding and educational background. This leads to confusion within students and lecturers on what is the exact standard to follow (Gallagher 2013:2).

Participants also experienced their differences in education backgrounds as a challenge:

“Even us as nurse educators, I foresee a challenge that we are coming from different institutions, I'm from there and the other one is from there.”

Participants were of the opinion that a workshop should be facilitated to ensure that all supervisors work according to the same principles:

“A workshop, I think the committee is also planning to give one to the nurse educators so that we match our research skills and knowledge ...”

The workshop could also serve to merge the differences among nurse educators resulting from their varied educational research backgrounds. Nurse educators and supervisors need to be kept up to date in research supervision in order for them to adequately coach, guide, supervise and assess nursing students in research (AACN 2006:12). Workshops also contribute to professional development.

3.3.4 Policies

Policies are very important when conducting research; they provide guidelines and the basis of how research in an institution should be taught and conducted. Policies also allow for the development of a comprehensive framework for the minimum acceptable ethical standards when conducting research (University of Western Australia 2014:1).

Policies are developed nationally and institutionally to guide the training institution and research institutions to implement or conduct quality research that meet the acceptable ethical standards (AACN 2006:4). The Ministry of Health in Swaziland also developed policies that guide everyone in the country who wishes to conduct a research study. Researchers have to follow the laid down policy where research proposals are reviewed and approved by the research ethics committee (Swaziland Scientific and Ethics Committee 2008:2; Nigerian National Health Research Ethics Committee 2007:7).

To conform to Swaziland National Health Research Policy the National Ethics Committee was established to safeguard research participants from unethical conduct in the studies conducted in Swaziland. The committee is responsible for approving research proposals and grant permission to conduct the research studies (Swaziland Scientific and Ethics Committee 2008:2).

Other African countries, like South Africa and Nigeria have their own National Health Research Ethics Councils and Committees that allow for institutions to register with them to ensure that the approval of research proposals can be decentralised, while assuring quality and the protection of participants (Nigerian National Health Research Ethics Committee 2007:7; South Africa 2006:13).

3.3.4.1 *Ethics committee matters*

The main aim for approving any research proposal by an ethics committee is to protect research participants (South Africa 2006:13). It is the responsibility of the reviewers to ensure that a proposal adheres to the required scientific integrity and that the researcher complies with all the ethics principles in an attempt to protect the participant and the quality of the research (Fouka & Mantzou 2011:3).

When conducting research that involves human participants, some countries, by law, expect that the research proposal should be approved by a registered ethics committee (South Africa Department of Health 2006:13; Nigerian National Health Research Ethics Committee 2007:7; Swaziland Scientific and Ethics Committee 2008:2; South Africa Health Act 61 of 2003:63). The National Research Committees decentralise their functions to research ethics committees at institutions that are registered or accredited by the national committees, but the national committees provide the guidelines and conduct audits to ensure quality (South Africa 2006:13).

In Swaziland research studies that involve human participation should be approved and monitored by the Swaziland Scientific and Ethics Committee.

The participants were aware that any research should be approved by the Scientific and Ethics Committee but they voiced some challenges that they face with the approval process:

“... you cannot easily see the ethics committee you just see the secretary who tells you about the number of people you have never seen. You are told you are not going to start your project before you get the green light from the ethics committee, so it's a challenge.”

It was argued that it is very difficult to see the Swaziland Scientific and Ethics Committee because it is centralised in the capital city Mbabane. According to the policy, once the applicant has submitted the proposal for approval, the applicant is invited to come and defend the submitted proposal to the Ethics Committee (Swaziland Scientific and Ethics Committee 2008:4). The implication is that the number of students will increase, and they have to travel to the capital city with quite some financial and time

implications. As research is now a requirement in the curriculum of students, these implications need to be addressed (Southern Africa Nazarene University 2011:10).

According to the participants:

“... approval process by the ethics committee also takes a long time”.

The process delays the commencement of the research project.

The Swaziland Scientific and Ethics Committee meet once a month to discuss the submitted proposals (Swaziland Scientific and Ethics Committee 2008:3). According to the participants that is one of the reasons why the process is delayed. In order to address this challenge participants were of the opinion that the work of the Swaziland Scientific and Ethics Committee should be decentralised:

“I think we need to set up our own research ethics committee which can do smaller scale research that are done by students at the university.”

“I think the research ethics committee should decentralise its powers.”

The participants also suggested encouraging the “ethics committee to respond within a reasonable time.”

In countries like Swaziland, Lesotho and the United Kingdom the Research Ethics Committee is required to give feedback within two months or 60 calendar days of the receipt of all the necessary documents (Swaziland Scientific and Ethics Committee 2008:4; Lesotho National Health Research Ethics Committee 2013:3). The feedback period is affected by the incomplete submission of all the necessary required documents or information. Considering the number of students who will be required to submit proposals to the Swaziland Scientific and Ethics Committee for approval, the number of proposals will now increase.

There is a need to lobby for the decentralisation of the Ethics Committee where the Swaziland Scientific and Ethics Committee assist to establish and register an institutional Health Research Ethics Committee as per the participants’ suggestion:

“The university needs to engage in the dialogue with the ethics committee and possibly get permission to approve research proposals at institutional level for academic purposes.”

In countries like Nigeria and South Africa, Lesotho, Australia and the United States of America institutions of higher education and other research institutions follow the guidelines provided by the National Authority – to establish their own registered or accredited Ethics Committees to decentralise the work (Nigerian National Code of Research Ethics 2007:7; South Africa 2006:13; Australian Government National Health and Medical Research Council 2013:1).

3.3.4.2 *Time limitations*

Teaching and supervising research projects involve various kinds of research activities that require a lot of time. Nurse educators, when developing the research module, must ensure that the time allocated to a specific aspect is realistic. Consideration must be given to the time needed for the selection of the relevant topic, proposal writing, the approval process by the National Ethics Committee, the literature review, acquiring scientific writing skills, the giving and receiving of feedback as well as developing the skill and competency to write the research report (Mouton 2011:63). In Swaziland the research module is currently presented in only one semester (six months) (Southern Africa Nazarene University 2011:3).

Not surprising the participants indicated that the time for handling the research methods module and research projects is too limited:

“The time given to the project is very short, especially now during the semesterisation, so that students do not comprehend the instruction, then the timing makes it difficult to apply.”

Students perceive research as a new and difficult component of their curriculum, and are of the opinion that one semester is not adequate for students to grasp all necessary concepts, conduct research and write a research report (Mellish et al 2009:324).

“The time given to the project is very short.”

Therefore the participants felt that research methodology could be done earlier than the third year and the research methodology module could be a year module like other universities as emphasised by Mouton (2011:63)

3.3.5 Students’ perceptions of research

Students perceive research as a difficult subject (Mellish et al 2009:333). The participants also emphasised the difficulty thereof:

“... when you start teaching a student research methodology, it’s something new, so they feel it’s very difficult because it’s different from other nursing subjects.”

Educators need to convince students of the importance of nursing research in education and in practice (Johnson et al 2010:45; Mellish et al 2009:333) but at the same time contribute to a positive attitude towards research. If students are given the opportunity to participate in research and be supervised and guided by an experienced researcher, they will acquire research knowledge and skills (Johnson et al 2010:45). Critical thinking and problem solving skills will also be developed, which will contribute to a positive attitude towards research (Hunter, Laursen & Seymour 2010:10).

3.3.5.1 Attitudes of students

Students may lack the culture and passion for research and information gathering. They have a negative attitude towards research rising from a belief that research is a new and difficult area that is not in any way related to the other clinical subjects they do (Mellish et al 2009:324). Factors that influence the teaching of nursing research and a positive research culture are amongst others: beliefs, attitude, participation and quality education in research (Ryan, Lea & Parker 2013:1). The negative attitudes towards research emanate from the manner in which the students had been taught research or their previous experiences regarding research (Ryan et al 2013:1; Hutchinson & Johnston 2004:306). The knowledge, skill and competency of the supervisor as well as the relationship with the supervisor also have an effect on the attitude of students towards research (Ismail & Abiddin 2011:84).

The nurse supervisor should foster the undergraduate student's research mindedness right from the beginning of their training by actively involving them in scientific enquiries, the research process and the various methods of research. They should be given small-scale research projects to practice their research skills and knowledge (Henard et al 2012:14; Johnson et al 2010:45; Mellish et al 2009:333). Research and a research culture can only thrive when certain prerequisites are in place, including a culture supportive and positive towards research (AACN (2006:7).

A positive attitude towards research may encourage students to do research, as indicated by the participants:

"They want everything to be done for them".

"What we need to do is to change attitude and say it (research) is doable."

The positive attitude towards research as lived by the educator or supervisor can influence the attitude of the student towards research (Johnson et al 2010:45; Mellish et al 2009:334). Nurse educators should lead by example by carrying out affordable research and publishing the research findings (Henard et al 2012:14). Acting as a role model for students can also contribute to the attitude of students as indicated by participants:

"I think the strategy is to role model the students so that they see it's not difficult, show the interest of the lecturer ..."

"Maybe if we improve our motivation, the culture of research will improve where we conduct research and present to the whole school so that the students may develop some passion for research."

"Also we can pick some projects that have been done by the students and also present them. And all the student bodies there present to their colleagues and to us teachers and that would help the upcoming researchers to develop the attitude of saying: I want to go out and do research so that I can be picked and present my study."

“We can also have as faculty. We can be developing mini-studies. If I can do this study then it can be a good thing for me.”

Students need to develop a passion for research if an institution is to contribute to a research culture. Participants felt that:

“... have kind of conferences to strengthen research skills because some of them may not even go say for their masters and PhD but they do need a step in the right direction. I can say that there is lack of passion from the students to read or research.”

“We can give assignments to the students from year one, I think they must have an element that will encourage the student to go and research, so that when they come to level three where they actually do theory, of research methodology, they will actually have done a number of research pages.”

3.3.6 University management

It is the role of the university's management to ensure that quality new researchers are produced by offering the research supervisors the support they deserve. The support will be in the form of establishing clear goals and effective leadership, training and support programmes and developing research centres as well as support in the form of finances, libraries, software programmes and internet access (Johnson et al 2010:45; SNC 2010a:13).

3.3.6.1 Affective support

Lack of support from the management of the university is a demotivating factor to the nurse educators and hinders the improvement of the research culture (Ballard 2013:1).

To foster a culture of research it is important that the management of an institution build good relationships with nurse educators and supervisors by being fair, addressing the issues that they raise and motivating or praising when it is deserved (Mellish et al (2009:293). The maintenance of the good relationship between the management and the nurse educators will promote the level of trust among them and will prevent it from

being a hindering factor towards a positive research culture (Ballard 2013:1). The participants stated:

“Management does not support when the lectures raise issues, they just promise and never address the issues.”

Higher education institutions should support nurse educators because literature has proven that lack of support from the institution’s management is an obstacle. It keeps the educators from conducting research and embedding the research culture in an institution as well as the nursing profession (Roets & Lubbe 2014:9; Hunt 2014:5).

The university under study introduced research in the curriculum and no strategies were put in place to support the nurse educators in teaching and supervising research projects for the nursing students. Nurse educators are expected to supervise students’ research projects that require knowledge and skills that some of them do not have. The university management is required to prioritise and address the needs of the research supervisors to enhance the research culture (Ismail & Abiddin 2011:85; Jacobson & Sherrod 2012: 279). The nurse educators are not prepared for supervising research projects. They have mentioned that:

“... most of us are not capacitated up to the level of a master’s degree ...”

“... we have never supervised research projects.”

If the university wants to promote the culture of research at the university nurse educators should be listened to when they have issues concerning the research teaching and supervising research projects of nursing students.

3.3.6.2 Financial support

The role of the nurse educator is to shape the future nurse researchers. Therefore the institutions should provide adequate financial resources to support research teaching and research supervision. Both nurse educators and nursing students need to be financially supported when conducting research and presenting their papers at conferences in order to promote the research culture and develop research skills (SNC

2010a:14; AACN 2014:1). Funding enables nurse researchers, even those with financial challenges, to grow and develop the skills of research. These greatly contribute to evidence-based practices (AACN 2006:1). Participants were aware of the importance of grants and the participants alluded that there was lack of funds from the university:

“It is de-motivating because the management does not give us financial support when we are doing our research and when we want to go and present at conferences.”

The university should establish a financial aid or bursary department which will be responsible for identifying students who need the financial assistance through an approved need-analysis system. Students who have shown an interest in research like in other universities, e.g., UNISA, Iowa State University, the University of KwaZulu-Natal and the University of Aberdeen (UNISA 2015:1; Iowa State University 2015:1; University of KwaZulu-Natal 2015:1; University of Aberdeen 2015:1) can qualify for a bursary.

The financial assistance could be in the form of grants/scholarships where students are not expected to pay back the money she/he was assisted with or it could be in the form of a loan where the student will be expected to repay the money within a stipulated period. Financial support for research students is vital (Roets & Lubbe 2014:8). Students who are talented in research are attracted by the financial assistance thus research knowledge and skills are enhanced, resulting in a positive research culture. In some institutions, when the student has finished the course, they receive incentives to motivate them. They will allow the student to pay only 15% of the amount spent to do the research study. This then motivates and encourages nurse researchers to conduct and finish their research studies (AACN 2014:1).

In order for the university to produce quality nurse researchers the management of the university and the nurse educators should explore potential partnerships and grant-funding opportunities with legislators and key decision-makers in an effort to secure funding to support researchers (AACN 2014:1). The university should also enquire from the Ministry of Education and Training, the Ministry of Health, the Ministry of Public Service and the United Nations Agencies about other available financial aid programmes that can be used to assist both the nurse educators and students when conducting research (Swaziland Ministry of Education 2000:13).

The lack of financial support for research-related aspects has chain effects on the status of libraries and the availability of computers, journals, e-books and e-resources. This also has implications for the appointment of adequate and competent staff for the library (CCNE 2013:10). The unavailability of these resources will have a negative effect on the research culture of the institution (Roets & Lubbe 2014:9). The university should mobilise funds and grant bursaries to support research-related expenses to motivate the educators and students to carry out research studies. Carrying out research studies result in gaining research skills and promoting a positive research culture (Mouton 2011:75).

3.4 CONCLUSION

This chapter has presented the research findings, analysis and interpretation of results gathered through the focus group discussion. Data collected was analysed and interpreted in light of existing literature (Holloway & Wheeler 2010:37). In most cases the findings of this study concurred with published literature.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

This chapter focuses on the conclusions made and the recommendations suggested regarding the challenges faced by nurse educators in teaching research methodology and supervising research projects of undergraduate nursing students at a university.

In this qualitative research study, focus group was used to gather data from nine nurse educators who were the participants of the study. The challenges that nurse educators faced in supervising students and teaching research as well as their suggestions for improvement is summarised in the following conclusions.

4.2 CONCLUSIONS

After analysing the verbatim transcript of the focus group, six themes emerged when describing the challenges experienced namely:

1. Human resources
2. Physical resources
3. Research skills and competencies
4. Policies
5. Students' perceptions of research
6. University Management

4.2.1 Human resources

Participants indicated very important challenges pertaining to human resources. They indicated that the lecturer to student ratio was too high – it was 1:90 – and that it will influence research supervision negatively.

The lack of enough competent IT personnel was described as a challenge when educators, students and supervisors need support in conducting research and preparing research reports.

Another shortage and challenge was the librarians available to assist students and supervisors. Although not mentioned by the participants, the university did not have language and technical editors available. At any university or institution where students do not write their dissertations in their mother tongue, these people are pivotal role players for enhancing the quality of research reports and the publication of research results in scientific journals.

Recommendations

It is recommended that the university under study enroll a manageable number of students that can support a smaller lecturer/student ratio. A lecturer/student ratio of about 1:30 is suggested for a module like Research Methodology. For research supervision a ratio of 1:4 for the inexperienced supervisors and 1:10 for the experienced supervisors is recommendable, depending on the other academic workload of the educators (Monash University Institute of Graduate Research 2014). The high lecturer/student ratio, as is the case at the university under study, will further increase the workload on the side of the lecturer if they have to supervise the students with their research projects. This may compromise the quality of nurse researchers produced at the university and poor quality research projects. Hence, poor research culture at the university.

It is recommended that the university employs more specialised support staff for research teaching and supervising research projects, e.g., IT personnel, librarians, language editors as well as technical editors. The standard ratio for IT personnel/user (nurse educators and students) is 1:200 and 1:100 for librarian/user (Applegate 2007:66). When appointing staff, the numbers of the available support staff should be realistic, taking into consideration the number of nurse educators as well as nursing students who need support with research.

4.2.2 Physical resources

Nurse educators expressed challenges related to the paucity of physical resources that include the small library, the inadequate number of computers, obsolete books, the shortage of journals and the limited operating hours of the library. The university lacks resources required for effective research and information gathering through computers and access to online data systems. This handicaps the quality of work produced by students when doing research. The lack of the above mentioned physical resources is further exacerbated by the large number of students enrolled.

Recommendations

It is recommended that the library extends its operating hours to maximise accessibility to both the students and educators. The library can open from 08:00 to 22:00 during weekdays and from 12:00 to 20:00 during weekends and holidays. This will also contribute to addressing the space problem in the interim as the same number of students will have longer hours to visit the library. In other words, not all the students will visit within the space of an eight-hour a day.

Since the library does not have enough resources, such as books and journals, it is recommended that an interlibrary loan facility service in collaboration with other libraries should be established. This will allow both the students and nurse educators to have access to study material that is available in other universities (University of Aberdeen 2015:1). The librarians should motivate for the subscription to online journals and e-books because hard copies are no longer the only way to access resources. Students should also undergo training in the library to assist them with the use of the available data bases and resources. Collaboration with other institutions like the University of Swaziland, World Health Organization, Eastern Central and Southern Colleges of Nursing should be considered by the university under study to allow the students to access textbooks, journals, and internet facilities from the institution's libraries.

4.2.3 Research skills and competencies

The lack of research skills and competences were discussed by the participants as a challenge when they have to teach research methodology and supervise research

projects of nursing students. The nurse educators raised the issue that most of them do not have the competency (only three participants out of nine have a Masters' degree) to supervise as they have no previous experience in supervision, conducting research or teaching research methodology.

There are no written guidelines to regulate the conduct and supervision of research projects. This may lead to a situation where students move from one educator to another, seeking research supervision assistance from supervisors who each have their own opinion and style. There might be conflict between educators who may be applying different systems and standards given that there is no homegrown instrument for regulating research projects.

Recommendations

The research directorate or those responsible for managing research at the university should enhance the research competence among research supervisors by providing very specific training. Training should include communication skills, how to provide constructive feedback, how to build a relationship between students and supervisors as well as how to select and allocate students to be supervised. For quality education in teaching research, the institution should also consider the recruitment of experienced nurse educators in research supervision who will assist in the mentoring of the novice supervisors.

To ensure quality research supervision there is an urgent need to develop guidelines that will clarify the qualities and training of the supervisors. The university under study will be advised to appoint a research director to facilitate the development of the guidelines as well as the training programme for supervisors.

Nurse educators and supervisors at the university need to be kept up to date on the trends in research supervision in order for them to adequately coach, guide, supervise and assess nursing students in research. The workshops should also contribute to professional development.

4.2.4 Policies

The approval process by the Swaziland Scientific and Ethics Committee takes a long time and that could be due to the fact that proposals are approved centrally in Swaziland by the Swaziland Scientific and Ethics Committee. According to participants the situation is aggravated by the fact that the Swaziland Scientific and Ethics Committee meets once a month to assess the research proposals and grant permission and that delays the students' commencement of the research projects.

The participants felt that the allocated time for students to acquire the necessary knowledge regarding research methodology and using this knowledge to conduct a research study is limited. Teaching and supervising research projects involves various kinds of research activities that require a lot of time.

Recommendations

In order to address the challenges faced regarding the approval of research proposals, the SANU needs to appoint the chairperson of university's research committee to engage in the dialogue with the Swaziland Scientific and Ethics Committee. The proposal for negotiation can be to decentralise the functions of the National Research Ethics Committee. The university can establish its own research ethics committees that can be registered and audited by the Swaziland Scientific and Ethics Committee to ensure that quality proposals are approved. The same principle can be implemented as is effective in South Africa where all research ethics committees that approve research on human subjects must be registered by the National Health Ethics Research Council and audited once a year (South Africa 2006:13). This would help speed up the process of approving research proposals.

It is recommended that the appointed research director and the research committee at the university should expedite the development of research guidelines since the nurse educators will start supervising research projects for the nursing students in August 2015.

The university management team should consult an expert in research to conduct a workshop for the nurse educators to synchronise nurse educators' differences in research systems resulting from their individual training backgrounds.

Given that students perceive research as a new and difficult component of their study, the university should make the research methodology module a year module instead of a semester module. This will contribute to the research-skills being introduced over a longer period to allow for internalisation and application. Research skills should also be instilled to nursing students by nurse educators right from the beginning of their training.

4.2.5 Students' perceptions of research

Another challenge that was raised by the nurse educators was that of the negative attitude by the students towards research. The negative attitude is said to be arise from a belief that research is a new and difficult subject area that is not in any way related to the clinical subjects they do. This attitude therefore renders serious challenges in motivating students to learn and understand research methods and conduct research.

Recommendations

In order to promote a positive research culture at the university the nurse educators should act as role models for the nursing students by carrying out research studies and publishing papers. Acting as a role model for students can also contribute to the positive attitude of students as indicated by participants.

The nurse educators at the university should cultivate research skills and a positive research culture. Students must be convinced about the importance of nursing research in education and in the nursing practice, right from the beginning of the training.

It is recommended that undergraduate nursing students should be given the opportunity to participate in research as well as be supervised mentored and guided in research in order to acquire research knowledge and skills. In this way quality researchers will be produced.

4.2.6 University management

Nurse educators reported that they were demotivated because management does not address issues raised by the educators. Management keeps on promising and never addresses the issues.

Financial support is currently nonexistent at the university and when the nurse educators conduct research, the management does not support or fund the research studies.

Recommendations

The voice of the nurse educators should be heard by the university management when they raise issues because nurse educators are responsible for the enhancement of a research culture at the university and the production of quality nurse researchers. Giving them an ear and addressing their issues could serve as a motivational factor for producing quality researchers.

The university management should mobilise funds to support the educators when conducting and supervising research projects. The educators should be sponsored when presenting research papers at conferences. The university should establish a well-equipped research centre that has adequate journals, research publications, computers and online books.

It is recommended that the university management establish a bursary department with an approved need-analysis system that will assist the university when granting funds or scholarships to skilled educators and students who are interested in conducting research.

In order for the university to produce quality researchers it is recommended that the university provide financial assistance in the form of grants or scholarships or in the form of a loan, where the student will be expected to repay the money over a stipulated period (AACN 2014:1).

The annual budget for research at the university should make provision for a research day that would engage expert researchers, nurse educators and students in presenting

research publications, debating research issues and showcasing research items by excelling students. Presentation of research papers at national and international conferences gives the university merit. The image of the university as a research facility will improve as mentioned by Salazar-Clemeña and Almonte-Acosta (2007:12).

Based on the conclusions and recommendations made in this final chapter of the research document, the researcher concludes that the research questions were answered and that a contribution was made to address the research problem.

4.3 RECOMMENDATIONS RELATED TO FURTHER RESEARCH

Due to the qualitative nature of this study, only one context was researched. It is however important to note that the restructuring of nursing education will influence other higher education institutions who have to offer research to nursing students to experience similar challenges.

It is therefore recommended that further research regarding this topic is needed if a research culture in all higher education institutions, offering research programmes, is to be established. The study should be replicated in other institutions but the opinion of the students should also be included.

A survey on the research competencies and the stance of nursing research in Swaziland might provide a baseline from where actions to contribute to the research culture in Swaziland can be taken or implemented.

4.4 LIMITATIONS OF THE STUDY

The research study focused on the challenges faced by nurse educators in teaching research methodology and supervising research projects in one university. The researcher aimed to conduct the same study at another college that had recently introduced a diploma programme where teaching research methodology and supervising nursing students' research became a requirement. However, the researcher was denied permission to conduct the study by the college's management. Despite motivations from the supervisor access and permission was denied.

The management of the nursing college felt that the study was not going to benefit them since they had not yet started teaching research methodology or supervising the students' research projects. This might be an indication that the implications for educators, without research experience, are utterly underestimated by the managers of the institutions and thus the research competence in the nursing profession remains challenging.

4.5 CONCLUDING REMARKS

The nursing profession is in need of Master's and Doctoral degree prepared nurses. Teaching nursing students' research methodology and instilling in them a love of research will form the building blocks for good research culture. Nurse educators and supervisors should therefore be competent and skillful to lead by example.

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ANNEXURE A

ETHICAL CLEARANCE CERTIFICATE, HEALTH STUDIES HIGHER DEGREES COMMITTEE



**UNIVERSITY OF SOUTH AFRICA
Health Studies Higher Degrees Committee
College of Human Sciences
ETHICAL CLEARANCE CERTIFICATE**

HS HDC/238/2013

Date: 23 October 2013 Student No: 3472-427-3

Project Title: Challenges faced by nurse educators in teaching research to undergraduate nursing students.

Researcher: Thabsile Margaret Bhembe

Degree: MA in Nursing Science Code: MPCHS94

Supervisor: Prof L Roets

Qualification: PhD

Joint Supervisor: -

DECISION OF COMMITTEE

Approved



Conditionally Approved



**Prof L Roets
CHAIRPERSON: HEALTH STUDIES HIGHER DEGREES COMMITTEE**

**Prof MM Moleki
ACADEMIC CHAIRPERSON: DEPARTMENT OF HEALTH STUDIES**

PLEASE QUOTE THE PROJECT NUMBER IN ALL ENQUIRES

ANNEXURE B

REQUEST FOR AUTHORISATION TO CONDUCT A RESEARCH STUDY

PO Box 4273
Manzini
Swaziland
M200
31 January 2014

The Vice Chancellor
Southern Africa Nazarene University
P. O. Box 6800
Manzini
Swaziland

Dear Sir/Madam

REQUEST FOR AUTHORISATION TO CONDUCT A RESEARCH STUDY

I am Margaret T. Bhembe, a registered Master's student at the University of South Africa (UNISA). I hereby apply to be granted permission to conduct a research study at your institution. A research study is a requirement to complete my studies and obtain my Master's degree. The title of my intended study is CHALLENGES FACED BY NURSE EDUCATORS IN TEACHING RESEACH TO UNDERGRADUATE NURSING STUDENTS (see attached the research proposal and consent letters).

The purpose of this study is to explore and describe the challenges faced by nurse educators in teaching research methodology at a nursing college/university in order to make recommendations to support nurse educators to teach research and supervise students to conduct research. The nurse educators will be asked to volunteer to participate in a focus group discussion after working hours. They will be able to withdraw at any stage of the study without any consequences for them. All data will be kept confidential and no information will be linked to a specific nurse educator in the

research report or any publication. You will be allowed access to the final research report.

Permission to conduct this study as well as ethical approval was obtained from the Higher Degrees Committee of the Department of Health Studies at UNISA to ensure that this study will be conducted in an ethical manner.

I hope to receive your approval to conduct this study.

Yours Sincerely

Bhembe.

Researcher: Margaret T. Bhembe

Supervisor: Prof Lizeth Roets

[Tel: +268 76115425](tel:+26876115425)

Tel: 012 429 2226

E-mail address: margaret59@live.com

roetsl@unisa.ac.za

ANNEXURE C

APPROVAL FROM SOUTHERN AFRICA NAZARENE UNIVERSITY



SOUTHERN AFRICA NAZARENE UNIVERSITY

ADMINISTRATION

P.O. Box 6800, Manzini M200, Kingdom of Swaziland

Tel: (+268) 2505 5749 Fax: (+268) 2505 2539

Email: admin@sanu.ac.sz

MEMORANDUM

 From: Dr. B.S. Nkosi, Pro Vice Chancellor: Administration

To: Mrs. Margaret Bhembe, PO Box 4273, Manzini, Swaziland M200 [76115425; margaret59@live.com]

CC: Dr. W. Nhlengethwa, Vice Chancellor; Dr. K. Brower, Pro Vice Chancellor: Academic; Mr. S. Ngqwane, Registrar; Sr. L.G. Dlamini, Dean, Health Sciences; Mrs. S. Mbingo, Dean, Faculty of Education; Rev. CS Magagula, Dean, Theology

BCC: Prof. Lizeth Roets, UNISA [012 429 2226; roetsl@unisa.ac.za]

 Date: 4th March, 2014

Subject: REQUEST FOR AUTHORIZATION TO CONDUCT A STUDY

The Executive Management Committee duly considered your application for authorization as noted above. Please be advised that management was happy to accede to your application. This approval is subject to the following conditions and limitations:

- To await introduction/informed consent through the Dean (Faculty of Health Sciences), that is, you should arrange for the Dean to introduce you to the Participants and the Participants must have prior informed consent to be in line with Section 7.4 in your Proposal;
- To note that SANU requires a report and bound Thesis copy on completion of the work. Thus the Researcher should give a written undertaking to provide the written report and Thesis copy and comply with the approval in its generality;
- To ensure that the research will not involve any breach of privacy, breach of any ethical codes, or any disclosure of information that is of a confidential nature in conformity with the research ethics.

Thank you.

Southern Africa Nazarene University
 P.O. Box 6800 Manzini M200, Kingdom of Swaziland
 Tel: (+268) 2505 5749. Fax: (+268) 2505 2539
ADMINISTRATION

ANNEXURE D

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

PO Box 4273

Manzini

Swaziland

M200

31 March 2014

The Dean

Southern Africa Nazarene University

P. O. Box 6800

Manzini

Swaziland

Dear Sir/Madam

REQUEST FOR PERMISSION TO CONDUCT A RESEARCH STUDY

I am Margaret T. Bhembe, a registered Master's student at the University of South Africa (UNISA). I hereby apply to be granted permission to conduct a research study at your institution and request contact details of the volunteer educators. A research study is a requirement to complete my studies and obtain my Master's degree. The title of my intended study is CHALLENGES FACED BY NURSE EDUCATORS IN TEACHING RESEARCH TO UNDERGRADUATE NURSING STUDENTS (see attached the research proposal and consent letters).

The purpose of this study is to explore and describe the challenges faced by nurse educators in teaching research methodology at a nursing college/university in order to make recommendations to support nurse educators to teach research and supervise students to conduct research. The nurse educators will be asked to volunteer to participate in a focus group discussion after working hours. They will be able to withdraw at any stage of the study without any consequences for them. All data will be

kept confidential and no information will be linked to a specific nurse educator in the research report or any publication. You will be allowed access to the final research report.

Permission to conduct this study as well as ethical approval was obtained from the Research Ethics Committee of the Department of Health Studies at UNISA, Southern Africa Nazarene University to ensure that this study will be conducted in an ethical manner.

I hope to receive your approval to conduct this study.

Yours Sincerely



Researcher: Margaret T. Bhembe

Supervisor: Prof Lizeth Roets

[Tel: +268 76115425](tel:+26876115425)

Tel: 012 429 2226

E-mail address: margaret59@live.com

roetsl@unisa.ac.za

ANNEXURE E

CONSENT FORM

Consent to participate in a research study

Title: Challenges Faced By Nurse Educators in Teaching Research to Undergraduate Nursing Students

Researcher: Margaret T. Bhembe

Supervisor: Prof. Lizeth Roets

Dear nurse educator

You are kindly invited to volunteer to participate in a research study. You have been chosen to take part in this study because you form part of the Southern Africa Nazarene University lecturers' team. The purpose of this study is to explore and describe the challenges faced by the nurse educators in teaching research methodology in order to make recommendations to support nurse educators in teaching research and supervising research projects.

The study and its procedures have been approved by the Higher Degrees Committee of the Department of Health Studies, University of South Africa (UNISA). The vice chancellor of the Southern Africa Nazarene University also gave permission. We foresee no risks for you if you decide to participate in this study.

You are invited to participate in a focus group discussion. The focus group will take about one to one and a half hours of your time. It will be conducted after hours and at a convenient time and place for volunteers, which will be communicated at a later stage. Please feel free to ask any questions you may have about the study or about your rights as a participant. You are free to contact Margaret Bhembe on +268 76115425.

It is important for you to know that your participation is entirely voluntary. You may decide not to take part in or quit the study at any time, without any penalty. The focus group will be tape recorded; a verbatim transcription will be done afterwards. All information will be kept confidential and data will be coded and will not be linked to your name. Your identity will not be revealed while the study is being conducted or when the study is reported or published.

I have read this consent form and voluntarily consent to participate in this study.

Subject's signature_____ Date_____

I have explained this study to the above subject and have sought his/her understanding for informed consent.

Researcher signature_____ Date_____

ANNEXURE F

INTERVIEW GUIDE FOR FOCUS GROUP

Welcome

Introduction of moderator (researcher):

Our topic for this focus group discussion is the challenges that you face in teaching research methodology and supervising research projects for the nursing students. The purpose of the study is to recommend the strategies that will assist you in teaching research methodology and supervising research projects.

The results will be used for academic purposes.

You were selected because you have had an experience in teaching research methodology and supervising research projects.

Focus group discussion

Obtain verbal consent

Information sheet will be read. The moderator will ensure that participants know their rights. This includes the right to withdraw their participation at any point in the research, even during the focus group discussion. Participants will be reassured that their identity will remain anonymous and that their identities will not be revealed in any publications/reports.

Guidelines to help establish ground rules

Only one person speaks at a time as we will be tape recording.

Confidentiality is ensured: "Whatever will be spoken in the room will stay in the room"

There is no right or wrong answers to questions, ideas, experiences and opinions. We have only different points of view which are all valuable.

You don't need to agree with each other, but you must listen respectfully as others share their views.

It is important for us to hear all aspects of an issue, both positive and negative.

I ask that you turn off your cell phones. If you cannot and you must respond to a call urgently, please do so as quietly as possible and rejoin the group as quickly as you can.

My role as the moderator will be to guide the discussion.

Please talk to each other.

Ground rules will be displayed on a flip chart. Participants will be offered an opportunity to add to the list of ground rules.

Opening question:

“Please describe the challenges that you are facing when you need to teach research methodology to nursing students.” (Probe based on discussion.)

Ending question:

“Of all things discussed here today, what is the most important to you?”

Summary question:

After a brief oral summary of the discussion the question will be asked:

“Is this an adequate summary?”

Final question:

The moderator reviews the purpose of the study and will then ask the participants:

“Has anything been missed?”

Closure and thanks to participants**Telephone Script for the recruitment of Participants for the Focus Group**

Identification: My name is Margaret Bhembe and I am an MA Nursing Science student at UNISA. I am currently doing research on the Challenges Faced by Nurse Educators in Teaching Research to Undergraduate Nursing Students.

Purpose: I am conducting a focus group to explore and describe the challenges faced by the nurse educators in teaching research methodology and supervising students at a university/college in order to make recommendations to support nurse educators in teaching research and supervising research.

Method: I am recruiting approximately eight to ten people for the focus group. It would take 1-1 ½ hours of your time.

The focus group is scheduled to take place on 30 July, 2014, from 12:00 to 13:30 at Southern Africa Nazarene University.

Would you be interested in participating?

Would you consent to being tape recorded?

I would like to send you a letter/email confirming your participation. It will include directions to the location of the focus group. May I have your email address please?

Approximately one week before the focus group I will communicate with you in order to confirm your participation in the research and answer any question you may have.

Thank you for agreeing to participate. I look forward to meeting with you soon.

Participant confirmation letter

Dear (Participant)

Thank you for agreeing to participate in the focus group to explore and describe the challenges faced by the nurse educators in teaching research methodology and supervising students at a university and a college in order to make recommendations to support nurse educators in teaching research and supervising research.

The focus group will be held at the date, time and location indicated below:

Date: 30 July 2014

Time: 12:00-13:30

Southern Africa Nazarene University

Conference Room

Please be reminded that the focus group will be recorded and your comments may be included in the final research report. The identity of all the participants participating in the focus group will be kept confidential throughout the research.

Should you have any further questions feel free to contact me.

Email: margaret 59@live.com

Cell: +268 76115425

Yours sincerely

Margaret Bhembe

MA Nursing Science Student

INTERVIEW GUIDE

Purpose: The purpose of the study is to explore and describe the challenges faced by the nurse educators in teaching research methodology and supervising students at a university/college in order to make recommendations to support nurse educators in teaching research and supervising research projects.

Questions asked:

1. "Please describe the challenges that you are facing when you need to teach research methodology to nursing students".
2. "Please describe the challenges that you are facing when you have to supervise them when conducting their research projects".
3. "Please describe any idea or suggestion on what can be done to support you to teach students research methodology".
4. "Please describe any idea or suggestion on what can be done to support you to supervise them on their research projects".

ANNEXURE G

LETTER FROM THE EDITOR



DECLARATION

DATE: 2/19/2015

184 Marais Street
Brooklyn
Pretoria
0181

19 February 2015

Re: Thabsile Margaret Bhembe, (Student Number: 34724273) MA dissertation editing

I hereby declare that I assisted Ms Bhembe with her MA dissertation by providing copy-editing and content editing, which included:

- * advice on grammar and grammar corrections;
- * advice on punctuation and punctuation corrections;
- * advice on formatting; and
- * advice on maintaining consistency of language style and conventions.

I provided Ms Bhembe with an editing report, highlighting areas of her dissertation that required specific attention and reworking. The report was also intended as an aid to help her understand the reasons for my edits and background to my comments.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Alexa'.

Alexa Anthonie

MA Linguistics for the Language Professions (Stellenbosch University)
BA Languages and Cultures (Stellenbosch University)

0832532717

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